

# EAST Search History (13 pp.)

| Ref # | Hits | Search Query                 | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|------------------------------|---|------------------|---------|------------------|
| L1    | 2    | jp-2001015798\$-\$.did.      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/03/06 14:16 |
| L2    | 2    | jp-2002232005\$-\$.did.      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/03/06 14:17 |
| L3    | 2    | jp-2000174344\$-\$.did.      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/03/06 14:20 |
| L4    | 2    | ("6350997").PN.              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/03/06 14:21 |
| L5    | 2    | jp-11307810\$-\$.did.        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/03/06 14:21 |
| L6    | 2    | jp-2002344017\$-\$.did.      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/03/06 14:53 |
| L7    | 2    | ("20020104997").PN.          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/03/06 14:53 |
| L8    | 0    | 7 and doped near12 barrier   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/03/06 14:53 |
| L9    | 0    | 7 and undoped near12 barrier | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/03/06 14:53 |

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|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| L10 | 0     | 7 and un-doped near12 barrier  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 14:54 |
| L11 | 0     | 7 and un-doped near12 MQW  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 14:54 |
| L12 | 0     | 7 and undoped near12 MQW   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 14:54 |
| L13 | 0     | 7 and doped near12 MQW   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 14:54 |
| L14 | 14398 | ((257/79) or (257/8\$1) or<br>(257/9\$1) or (257/100) or<br>(257/101) or (257/102) or<br>(257/103) or (372/43.01) or<br>(372/45.01)),CCLS. | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 15:44 |
| L15 | 0     | 14 and exfoliat\$3.ti,ab,clm. and<br>(spacer barrier).ti,ab,clm.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 15:45 |
| L16 | 1511  | 14 and (spacer barrier).ti,ab,clm.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 15:45 |
| L17 | 509   | 14 and (spacer barrier).ti,ab,clm.<br>and (clad cladding).ti,ab,clm.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 15:46 |
| L18 | 12    | 14 and (spacer barrier).ti,ab,clm.<br>and (clad cladding).ti,ab,clm. and<br>(hitachi.as. konno.in.)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 15:47 |
| L19 | 10    | 14 and (spacer barrier).clm. and<br>(clad cladding).clm. and (hitachi.<br>as. konno.in.)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 15:47 |

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|----|----|--|---|----|-----|------------------|
| S1 | 5  | "807413".ap.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/30 18:43 |
| S2 | 2  | jp-2002226846\$.did.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/30 19:06 |
| S3 | 41 | exfoliat\$2.ti,ab,clm. and<br>(light-emitting adj (device diode)<br>light adj emitting adj (device<br>diode))  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:12 |
| S4 | 3  | exfoliat\$2.ti,ab,clm. and<br>(light-emitting adj (device diode)<br>light adj emitting adj (device<br>diode)) and AlGaAs and (ITO<br>indium-tin-oxide)                                 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:20 |
| S5 | 1  | exfoliat\$2 near6 AlGaAs and (ITO<br>indium-tin-oxide) and (257/79.<br>ccls. 257/8\$1.ccls. 257/9\$1.ccls.<br>257/10\$1.ccls.)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:22 |
| S6 | 1  | exfoliat\$2 near6 AlGaAs and (ITO<br>indium-tin-oxide) and (372/4\$1.<br>ccls. 372/50.ccls. 257/79.ccls.<br>257/8\$1.ccls. 257/9\$1.ccls.<br>257/10\$1.ccls.)                          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:22 |
| S7 | 2  | (lift-off exfoliat\$2) near6 AlGaAs<br>and (ITO indium-tin-oxide) and<br>(372/4\$1.ccls. 372/50.ccls.<br>257/79.ccls. 257/8\$1.ccls.<br>257/9\$1.ccls. 257/10\$1.ccls.)                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:24 |
| S8 | 5  | (lift-off exfoliat\$2) near6<br>(aluminum AlGaAs) and (ITO<br>indium-tin-oxide) and (372/4\$1.<br>ccls. 372/50.ccls. 257/79.ccls.<br>257/8\$1.ccls. 257/9\$1.ccls.<br>257/10\$1.ccls.) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:26 |
| S9 | 1  | (exfoliat\$2) near6 (aluminum<br>AlGaAs)and (372/4\$1.ccls. 372/50.<br>ccls. 257/79.ccls. 257/8\$1.ccls.<br>257/9\$1.ccls. 257/10\$1.ccls.)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 19:26 |

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|     |      |   |   |    |    |                  |
|-----|------|---|---|----|----|------------------|
| S10 | 1    | (exfoliat\$2) near6 (aluminum AlGaAs) and (372/4\$1.ccls. 372/50.ccls. 257/79.ccls. 257/8\$1.ccls. 257/9\$1.ccls. 257/10\$1.ccls.)                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 19:26 |
| S11 | 1    | (exfoliat\$2) near6 (aluminum AlGaAs Al AlAs) and (372/4\$1.ccls. 372/50.ccls. 257/79.ccls. 257/8\$1.ccls. 257/9\$1.ccls. 257/10\$1.ccls.)                          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 19:27 |
| S12 | 131  | (exfoliat\$2) near6 aluminum  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 19:29 |
| S13 | 68   | (exfoliat\$2) near3 aluminum  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 19:34 |
| S14 | 19   | (ITO indium-tin-oxide) near6 (AlGaAs AlAs) and ((light-emitting light adj emitting) adj (diode device laser))   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 20:03 |
| S15 | 1259 | stop adj layer.ti.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 19:49 |
| S16 | 2    | stop adj layer.ti. and light-emitting adj diode   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 19:49 |
| S17 | 0    | (ITO indium-tin-oxide) near6 (AlGaAs:Zn AlGaAs:Si AlGaAs:Ge AlAs:Zn AlAs:Si AlGa:Ge) and ((light-emitting light adj emitting) adj (diode device laser))             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 20:04 |
| S18 | 0    | (ITO indium-tin-oxide) near6 ("AlGaAs:Zn" "AlGaAs:Si" "AlGaAs:Ge" "AlAs:Zn" "AlAs:Si" "AlGa:Ge") and ((light-emitting light adj emitting) adj (diode device laser)) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 20:04 |

## EAST Search History

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|-----|----|--|---|----|----|------------------|
| S19 | 0  | (ITO indium-tin-oxide) near6 (AlGaAs near4 ((heavily highly) adj doped) "AlGaAs:Zn" "AlGaAs:Si" "AlGaAs:Ge" "AlAs:Zn" "AlAs:Si" "AlGa:Ge") and ((light-emitting light adj emitting) adj (diode device laser))  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:05 |
| S20 | 0  | (ITO indium-tin-oxide) near10 (AlGaAs near4 ((heavily highly) adj doped) "AlGaAs:Zn" "AlGaAs:Si" "AlGaAs:Ge" "AlAs:Zn" "AlAs:Si" "AlGa:Ge") and ((light-emitting light adj emitting) adj (diode device laser)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:06 |
| S21 | 17 | (ITO indium-tin-oxide) near10 AlGaAs and (light-emitting light adj emitting) adj diode   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:06 |
| S22 | 0  | (ITO indium-tin-oxide) near10 AlGaAs:Zn and (light-emitting light adj emitting) adj diode  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:06 |
| S23 | 1  | (ITO indium-tin-oxide) near10 AlGaAs near10 Zn and (light-emitting light adj emitting) adj diode   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:07 |
| S24 | 1  | (ITO indium-tin-oxide) near10 AlGaAs near10 (Si Ge Zn Mg Cd) and (light-emitting light adj emitting) adj diode   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:08 |
| S25 | 0  | (ITO indium-tin-oxide) near10 AlGaAs near10 heavily adj doped and (light-emitting light adj emitting) adj diode  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:08 |
| S26 | 0  | (ITO indium-tin-oxide) near10 AlGaAs near10 (n+ "N+" heavily adj doped) and (light-emitting light adj emitting) adj diode  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:09 |
| S27 | 0  | (ITO indium-tin-oxide) near10 AlGaAs near10 ("n.sub.+" "N.sub.+" heavily adj doped) and (light-emitting light adj emitting) adj diode  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:09 |



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|     |     |   |   |    |    |                  |
|-----|-----|---|---|----|----|------------------|
| S28 | 17  | (ITO indium-tin-oxide) near10 AlGaAs and (light-emitting light adj emitting) adj diode  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:20 |
| S29 | 4   | ohmic adj contact near10 (AIAs AlGaAs) near10 (ITO TCO transparent) and (light-emitting adj diode light adj emitting adj diode) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:25 |
| S30 | 2   | ohmic adj contact near10 (AIAs AlGaAs) near10 (electrode) and (light-emitting adj diode light adj emitting adj diode)           | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:30 |
| S31 | 0   | ohmic adj contact near10 (AIAs AlGaAs) near10 (ITO TCO)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:31 |
| S32 | 0   | ohmic adj contact near10 (AIAs AlGaAs) near10 zinc adj oxide  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:31 |
| S33 | 106 | ohmic adj contact near5 (AIAs AlGaAs)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:32 |
| S34 | 51  | ohmic adj contact near3 (AIAs AlGaAs)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:51 |
| S35 | 0   | ohmic adj contact near3 (AIAs AlGaAs) and exfoliat\$3   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:43 |
| S36 | 0   | (adhesion adhesive) near10 (AIAs AlGaAs) near10 ohmic adj contact   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 20:51 |
| S37 | 5   | ohmic adj contact near3 (AIAs AlGaAs) and "10.sup.19"\$3  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/05/30 21:27 |

## EAST Search History

|     |    |  |   |    |    |                  |
|-----|----|--|---|----|----|------------------|
| S38 | 53 | band adj gap near4 ohmic adj contact   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 21:54 |
| S39 | 27 | band adj gap near3 ITO   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 21:47 |
| S40 | 0  | direct adj gap near3 ohmic adj contact   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 21:49 |
| S41 | 0  | direct adj gap near3 contact adj region  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 21:50 |
| S42 | 0  | direct adj2 gap near3 contact adj region   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 21:50 |
| S43 | 6  | contact adj resistance near4 band adj gap  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 22:00 |
| S44 | 0  | (p-type adj ito) near5 (band adj gap)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 22:06 |
| S45 | 0  | "Al.sub."\$4"Ga.sub."\$4As near10 band adj gap near10 (contact adj region ohmic adj contact) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 22:15 |
| S46 | 2  | "6236065".pn.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 22:35 |
| S47 | 2  | "6495862".pn.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/05/30 22:35 |

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|     |     |  |   |    |     |                  |
|-----|-----|--|---|----|-----|------------------|
| S48 | 0   | "6495862".pn. and AlGa <sub>N</sub>  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 22:35 |
| S49 | 1   | "6495862".pn. and exfoliat\$3  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 22:37 |
| S50 | 1   | "6495862".pn. and exfoliat\$3 and<br>(AlGaAs AlGa <sub>N</sub> Al aluminum)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 22:50 |
| S51 | 690 | contact adj (region layer) near6<br>(impurity adj concentration)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 22:51 |
| S52 | 22  | contact adj (region layer) near4<br>(impurity adj concentration) and<br>transparent adj electrode  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/30 22:51 |
| S53 | 0   | direct adj2 band adj gap near10<br>(ohmic adj contact contact adj<br>region)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/31 06:43 |
| S54 | 6   | "Al.sub."\$4"Ga.sub."\$4As near10<br>(ohmic adj contact contact adj<br>region)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/05/31 06:43 |
| S55 | 10  | (US-20020096688-\$ or<br>US-20020110940-\$ or<br>US-20040197981-\$ or<br>US-20040227151-\$).did. or<br>(US-5770489-\$ or US-6055262-\$<br>or US-6856087-\$ or<br>US-6867426-\$).did. or<br>(JP-2002226846-\$).did. or<br>(JP-2002226846-\$).did. | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT                  | OR | OFF | 2005/05/31 07:31 |
| S56 | 3   | S55 and Zn   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:19 |



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|     |    |   |   |    |     |                  |
|-----|----|---|---|----|-----|------------------|
| S57 | 2  | S55 and Mg  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:20 |
| S58 | 9  | "6495862"   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:21 |
| S59 | 2  | ("6495862").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:21 |
| S60 | 11 | (US-20020096688-\$ or<br>US-20020110940-\$ or<br>US-20040197981-\$ or<br>US-20040227151-\$).did. or<br>(US-5770489-\$ or US-6055262-\$<br>or US-6856087-\$ or US-6867426-\$<br>or US-6495862-\$).did. or<br>(JP-2002226846-\$).did. or<br>(JP-2002226846-\$).did. | US-PGPUB;<br>USPAT;<br>JPO;<br>DERWENT                  | OR | OFF | 2005/05/31 07:31 |
| S61 | 1  | S60 and autodoped   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:33 |
| S62 | 75 | autodoped   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:33 |
| S63 | 35 | autodoped.ti,ab,clm.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/05/31 07:33 |
| S64 | 20 | jp-1130810\$-\$..did.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/01 15:09 |
| S65 | 2  | jp-11307810\$-\$..did.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/01 15:09 |

## EAST Search History

|     |     |  |   |    |     |                  |
|-----|-----|--|---|----|-----|------------------|
| S66 | 2   | jp-2002344017\$-\$.did.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/01 15:10 |
| S67 | 2   | ("6350997").PN.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/01 15:10 |
| S68 | 2   | "6350997".pn.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/07 16:28 |
| S69 | 3   | "116324".ap.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/08 09:42 |
| S70 | 1   | (US-20040227151-\$).did.   | US-PGPUB  | OR | OFF | 2005/11/13 18:03 |
| S71 | 1   | S70 and prevent\$3 near6<br>concentrat\$3  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/11/13 18:06 |
| S72 | 2   | ("5869849").PN.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/11/13 18:10 |
| S73 | 8   | JP-2002232005\$-\$.did.<br>JP-2000174344\$-\$.did.<br>JP-08097467\$-\$.did.<br>JP-2000312028\$-\$.did. | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 18:38 |
| S74 | 2   | jp-2003158887\$-\$.did.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 19:11 |
| S75 | 418 | graded near3 clad\$4   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/11/13 19:34 |

## EAST Search History

|     |      |  |   |    |    |                  |
|-----|------|--|---|----|----|------------------|
| S76 | 6    | (double graded) near3 clad\$4 and (indium adj tin adj oxide ito) and (zn zinc) near2 dop\$3                              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 19:42 |
| S77 | 10   | (double graded) near2 active and (indium adj tin adj oxide ito) and (zn zinc) near2 dop\$3                               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 19:54 |
| S78 | 10   | (double graded bi-layer) near2 active and (indium adj tin adj oxide ito) and (zn zinc) near2 dop\$3                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 19:54 |
| S79 | 16   | (double graded bi-layer laminate) near2 active and (indium adj tin adj oxide ito) and (zn zinc) near2 dop\$3             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 19:55 |
| S80 | 3    | (double graded bi-layer laminate) near2 active and (indium adj tin adj oxide ito) and (zn zinc) near2 dop\$3 and AlGaInP | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 20:29 |
| S81 | 0    | "5869849".pn. and (mqw multiple ad adj "well")   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 20:30 |
| S82 | 1854 | (AlGaInP GaAlInP InGaAlP InAlGaP) and (mqw multiple ad adj "well")   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 20:31 |
| S83 | 348  | (AlGaInP GaAlInP InGaAlP InAlGaP) with (mqw multiple ad adj "well")  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 20:31 |
| S84 | 29   | (AlGaInP GaAlInP InGaAlP InAlGaP) with (mqw multiple ad adj "well") and ito  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 20:31 |
| S85 | 6    | (AlGaInP GaAlInP InGaAlP InAlGaP) with (mqw multiple ad adj "well") and ito and (zn zinc) near3 dop\$3                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/11/13 21:03 |

## EAST Search History

|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S86 | 134   | (mqw multiple ad adj "well") with quantum adj2 efficiency  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 21:04 |
| S87 | 0     | (mqw multiple ad adj "well") with quantum adj2 efficiency with light-emitting adj diode                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 21:04 |
| S88 | 14    | (mqw multiple ad adj "well") with quantum adj2 efficiency with (light adj emitting light-emitting)             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 21:05 |
| S89 | 3     | (mqw multiple ad adj "well") with quantum adj2 efficiency with (light adj emitting light-emitting)             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 21:05 |
| S90 | 4     | (mqw multiple ad adj quantum adj "well") with quantum adj2 efficiency with (light adj emitting light-emitting) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/13 21:05 |
| S91 | 117   | MQW near6 efficiency   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/14 08:58 |
| S92 | 0     | MQW near6 efficiency near6 light adj emitting and LED.ti,ab,clm.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/14 08:58 |
| S93 | 7     | MQW near6 efficiency near6 light adj emitting  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/14 08:58 |
| S94 | 20    | MQW near6 efficiency near6 ("LED" light adj emitting)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/14 09:49 |
| S95 | 11454 | ((257/79) or (257/8\$1) or (257/9\$1) or (257/100) or (257/101) or (257/102) or (257/103)).CCLS                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/11/14 09:49 |

## EAST Search History

|      |       |   |   |    |     |                  |
|------|-------|---|---|----|-----|------------------|
| S96  | 12220 | ((257/79) or (257/8\$1) or (257/9\$1) or (257/100) or (257/101) or (257/102) or (257/103) or (372/43.01)).CCLS.                                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/11/14 09:49 |
| S97  | 124   | S96 and (damag\$3 exfoliat\$3 degradat\$3 erosion eroding corrosion corroding) near6 electrode and transparent near4 electrode                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/14 09:52 |
| S98  | 83    | S96 and (damag\$3 exfoliat\$3 degradat\$3 erosion eroding corrosion corroding) near6 electrode and transparent near4 electrode and @ad<"20030401" | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/11/14 09:52 |
| S99  | 1     | (US-20040227151-\$).did.  | US-PGPUB  | OR | OFF | 2006/01/26 16:21 |
| S100 | 1     | (US-20040227151-\$).did. and "between" and (band adj gap gap)   | US-PGPUB  | OR | OFF | 2006/01/26 16:22 |
| S101 | 2     | ("5869849").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 12:02 |
| S102 | 2     | ("20020104997").PN.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2006/03/06 12:14 |
| S103 | 81    | waveguide adj layer near6 (clad cladding) and (257/8\$1.ccls. 257/9\$1.ccls.)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 12:18 |
| S104 | 4     | (AlGaInP AlInGaP) and (257/8\$1.ccls. 257/9\$1.ccls.) and "undoped" near4 "between" near4 (clad cladding) near4 active                            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2006/03/06 14:14 |